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## **Rural Radio Resource Pack - 2005**

# **FOOD AND NUTRITION SECURITY IN THE CARIBBEAN**



CTA is funded by the  
European Union

The Technical Centre for Agricultural and Rural Cooperation (CTA) was established in 1983 under the Lomé Convention between the ACP (African, Caribbean and Pacific) Group of States and the European Union Member States. Since 2000, it has operated within the framework of the ACP-EC Cotonou Agreement.

CTA's tasks are to develop and provide services that improve access to information for agricultural and rural development, and to strengthen the capacity of ACP countries to produce, acquire, exchange and utilise information in this area.

#### *Rural radio*

Radio remains, despite all the interest in the new ICTs, one of the most important communication tools in ACP rural communities. CTA began supporting rural radio back in 1991. Every year since then we've produced a set of Rural Radio Resource Packs (RRRPs).

Each pack is on a specific topic – anything from crop storage and cassava to small ruminants and soil fertility. The choice of topics depends on what ACP partners suggest. The number of topics covered has now reached 51. Inside each pack are materials for a radio programme on that topic – interviews on cassette or CD, a transcription and a suggested introduction for each interview, technical information on the topic, advice for how the pack can be used and a questionnaire for users to provide feedback to CTA.

You can find most of the RRRP material on CTA's Rural Radio website  
<http://ruralradio.cta.int/>.

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# CTA

## *Rural Radio Resource Pack - 2005*

### **Food and Nutrition Security in the Caribbean**

#### **TECHNICAL INFORMATION**

##### **Introduction**

Food security is a major concern for developing countries as the global community strives to meet the Millennium Development Goals. In the Caribbean region, as socio-economic conditions have improved over the last two to three decades, the incidence of malnutrition and infectious disease has declined. However, during this same period, non-communicable diseases have risen rapidly. Nutrition-related chronic diseases including diabetes, hypertension, heart disease, stroke, cancer, gall bladder diseases etc. are now the major causes of deaths in the Caribbean.

Pockets of malnutrition still exist but most Caribbean states enjoy relatively high levels of food security in terms of food access and availability. However, there is a failure of the food system to meet the nutritional and health requirements of the population. Excess consumption of sugar, fat and protein are resulting in obesity and nutrition-related diseases.

Caribbean governments have generally been using food subsidies, price controls, school feeding programmes and other methods to support the nutrition of their populations. The broader issue of food security has largely been addressed with respect to production through the agricultural sector. However, with the changing profile of the nutrition status of Caribbean populations, there is growing awareness of the link between nutrition, health, agriculture and trade and the concept of food and nutrition security. Achieving health and nutritional goals as well as improving productivity and availability of food is essential if food and nutrition security is to be achieved within the region.

To date, most Caribbean countries have developed food and nutrition plans aimed at meeting some of the food and nutrition goals in respective countries. However, the implementation of these plans has been limited and the broader concept of food and nutrition security has not been well integrated into these plans. Recent disasters, including hurricanes, flooding and earthquakes have also drawn attention to the need for disaster preparedness and recovery issues to be incorporated into plans for food and nutrition security.

##### **CTA's seminar on Communication for Food and Nutrition Security**

In March this year, the Technical Centre for Agricultural and Rural Cooperation (CTA) together with the Caribbean Agricultural Research and Development Institute (CARDI) and the Caribbean Food and Nutrition Institute (CNFI) hosted a week-long seminar in Belize. The title of the seminar was the Role of Information and Communication Tools for Implementation of Food and Nutrition Security Plans in the Caribbean Region. Over 40 experts from government ministries across the Caribbean,

international organisations and other agencies joined their Belizean counterparts as did (at the invitation of CTA) Susanna Thorp from WRENmedia in the UK. The radio features in this pack represent the different countries and ministries and organisations attending the seminar. All of them discuss the topical issues of tackling food and nutrition security, with an emphasis on the use of information and communication tools, within the Caribbean states.

### **Diet and health**

High consumption of fatty foods and sweet foods has resulted in increased rates of many diet-related diseases (see above). Apart from the loss of life, and decline in quality of life that such high disease rates cause, there is also a significant financial cost: drugs and treatment programmes are very expensive to fund and, in terms of their work output, unhealthy people generally contribute less to the economy. It is estimated that the combined cost of diabetes treatments in four Caribbean countries alone (Guyana, Barbados, Trinidad, Jamaica) amounts to over US\$1 billion per year. As a communication issue, it is vital that people understand the link between their diet and their health. Poor eating habits have led to very high rates of obesity in the Caribbean. In some countries, such as the Bahamas, as much as two-thirds of the adult population are estimated to be overweight, and nearly a third are actually obese.

However, many people are unaware of the importance of eating a good diet, or of the impact of poor diet on their health. Many people's daily eating and cooking habits, passed on from their parents and grandparents, may not be based on good nutritional principles. The basis of such principles is the six food groups. To stay healthy, people need to eat from each of the food groups, in order to get the energy, protein, vitamins and minerals that their bodies need. A large part of a person's diet should be from three of the food groups - cereals, fruit and vegetables. A smaller part should come from the other three food groups - meat and protein, dairy products, and oils and fats. And of course, a person needs to eat an appropriate amount of food. Taking exercise on a daily basis is also very important for health - particularly for the heart.

### **Changing people's eating habits**

Poor diet is ruining people's health, damaging their quality of life, as well as putting a financial strain on Caribbean economies. The situation needs to be addressed, but who should take responsibility, and how can it be done? In order for people to hear and learn more about the importance of a healthy diet, much more information needs to be communicated to the general public on nutrition. Participants at the conference recognised that it was the task of government information services, and other media channels, such as newspapers, radio and TV, to provide much better coverage of nutrition issues. However, it was also acknowledged that professionals working in nutrition and health sectors should be consistent in their messages when dealing with patients. Policy-makers are beginning to realise that it is far more cost-effective to target educational programmes to teach people the value of healthy diets than it is to pick up the bill for treating so many nutritionally-related problems but far more needs to be done. Many countries, for instance, lack nutritional experts at senior levels. Creating a favourable environment for people to walk to work, play in the park and generally take exercise as part of a health lifestyle should also be a priority.

### **Communicating about health and nutrition**

According to several participants at the seminar, communicating about nutrition should be given a greater priority by government departments, particularly health and education departments, but also agriculture. A better relationship between government and the private media should also be established, since many people receive the information they are interested in through non-government sources: newspapers, magazines, radio and TV programmes produced by independent companies. If staff within government departments can target these outlets, their impact will be much greater; that however, will require a relationship of respect and trust to develop between the two, which takes time and effort to establish. Government staff however, need to have an understanding of what to communicate (i.e. focus on the most important messages) and how best to communicate it.

### **Better organisation and co-ordination**

Better co-ordination between government departments and provision of holistic health advice is also important. For example, health and agriculture departments need to work together to promote cultivation of a wide range of food crops, which can contribute to a diverse and healthy diet. This might include greater cultivation of fruit and vegetables in home gardens. Education departments also need to be involved, so that, for example, school feeding programmes are providing healthy, balanced diets. Information on healthy cooking and eating should be included in school curricula; teaching children at a young age to eat healthily is more effective than dealing with the problem once youngsters have developed poor eating habits.

However, links between agriculture and diet in Caribbean countries are complicated by the fact that cash crops for export have dominated production for many years. The loss of trading preferences in Europe, for sugar and bananas for example, is forcing some countries to rethink how they are going to feed themselves. Should they find other cash crops, and continue importing the bulk of their food, funded by income from exports? Or should they look to actually grow more food for domestic consumption? And if they did so, would they be able to protect their farmers from competition with cheap, imported foods? Some of the interviews in this pack offer different opinions on these questions; there are clearly not easy answers, but joined-up thinking by departments responsible for health, agriculture, trade and finance are key to the decision-making process, and it is therefore important for all policy-makers to understand the links between diet, health and productivity.

### **Food and nutrition security plans**

One way of achieving a holistic approach to food and nutrition security is through the creation of a national - or regional - food and nutrition security plan. Food security is a fairly well known concept; the maintenance of sufficient supplies of food to meet the needs of the population. Many feel that nutrition security has very been overlooked and insufficient emphasis has been put on ensuring not only that there is food available, but that the type of food available is sufficiently varied to meet nutritional needs. Nearly all the countries in the Caribbean region are in the process of writing or implementing a food and nutrition security plan, with assistance being provided by the Caribbean Food and Nutrition Institute. Some plans are still waiting to be ratified by government and may need updating or modifying before they are implemented. However, understanding the food and nutritional needs of the population lays the foundation for ensuring that these needs can be met, and such

planning will generally involve input from many different government departments.

### **Responding to natural disasters**

The occurrence of a natural disaster, such as a hurricane or flood, often has a huge impact on food supplies and short-term food security. In the case of Grenada, Hurricane Ivan destroyed the island's food crops and people depended on imports of processed and canned foods to survive. For those suffering from diet-related illnesses, eating too many of these kinds of foods can actually add to their health problems. A further problem comes with attempts to restore agriculture. Caribbean islands have their own varieties of crops, which suit the particular conditions of the area. For example, they may have resistance to certain locally found pests or diseases. But when crops are destroyed, farmers may not have anything they can plant to begin a new crop, and have to depend on seed that has been brought from outside the island. These imported varieties may not have the resistance of the island varieties, so when the next harvest season occurs, farmers find that they have not been able to get the same level of yield.

Currently when disaster-response planners are considering the need to feed the population after a disaster, they do not tend to look beyond distribution of food. However, several speakers at the conference suggested that restoring agriculture ought to be a high priority once a disaster has occurred and disaster-response committees need to have an agricultural recovery section. Planning for disaster might also mean ensuring that the island has sufficient ongoing production of seeds and other planting materials of its own crop varieties, so that these can be easily distributed to farmers if their crops are destroyed.

### **The role of modern information technologies**

Another focus on the conference was on the role that modern information and communication technologies (ICTs) can play in supporting food and nutrition security in the Caribbean. There are several ways the ICTs might help. Internet websites are already being developed by government departments, where people can access information about ongoing government activities. Children in schools in some areas are learning how to get information that they need from the Internet, so developing exciting food and diet related websites could be a good way of getting information to the younger generation. Few people, particularly in rural areas, have their own Internet-linked computer, but Jamaica has made steps to increase the accessibility to the general population. More public libraries are now being equipped with computers, and a new programme is planning to issue computers to 60 agricultural extension offices across the island.

Developing an appropriate food and nutrition policy demands the need for good data, for example on feeding habits and health patterns. These may vary significantly from one area to another, particularly where there are several different ethnic groups. Computer-based technology could greatly enhance data collection and analysis as well as allowing professionals to communicate more effectively within and between departments. This would in turn allow policy development to meet the needs of the real situation, rather than being made on the basis of a 'gut feeling'. However, for this to happen, policy makers need to appreciate the value of the computer-based tools, and so be ready to fund their provision.



### **Using this Rural Radio Resource Pack**

Food, nutrition and health is a subject with a very wide audience appeal, since it affects all of us. It therefore makes an ideal subject for discussion, whether by an invited panel of speakers, or through a phone-in. The interviews in the pack could be used on their own, to raise awareness about the various issues discussed, or be used to prompt further comments - either from an invited guest, from yourself the broadcaster, or from audience members or experts who phone in.

Suitable people to comment on the issues raised in this pack would include: a nutrition or agricultural advisor (perhaps someone working at the Department/Ministry for Health or Agriculture), a doctor (who could in particular comment on nutrition related disease), a teacher responsible for health education, a cook or chef (who could comment on how to cook in healthier ways), a sportsman or woman (who may have to control their diet very carefully, and may also be able to inspire the audience about the value of taking exercise).

Government policy regarding food and nutrition is another area you could explore. For example, nearly every country in the Caribbean has, or is developing, a long-term food and nutrition security plan. What plan is being developed in your country? It may involve contributions from a number of different government departments, including the finance department, agriculture, health, trade and possibly education. Is there a clear vision for the future of food and nutrition security? How will it be achieved?

In terms of information and communication technologies, it may also be interesting to see if these are used to assist government staff or are a constraint in progressing food and nutrition security plans.

Some of the general issues/questions you may want to discuss include:

- How are poor diet and poor health linked in the Caribbean?
- What is a balanced diet?
- Why are rates of diet-related illness in the Caribbean so high?
- Are traditional attitudes to cooking and eating damaging our health?
- What role should agriculture have in ensuring food and nutrition security?
- What information and communication tools are used in understanding and improving food and nutrition security.
- How can the supply of nutritious foods after a disaster be improved?
- How does our trade policy impact on our diet?
- Is it possible to get young people interested in healthy eating? How?
- Do we take enough exercise? What might encourage people to take more?



# CTA

## *Rural Radio Resource Pack - 2005*

### **Food and Nutrition Security in the Caribbean**

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<b><i>Food and health - making the link</i></b> Diet related illness in the Caribbean, the cost implications, and the need for people to eat and live more healthily.	3'34"
<b><i>Eat healthy, stay healthy</i></b> Diet problems in Grenada after Hurricane Ivan, the need for long-term education on healthy eating, and an integrated approach from government.	4'37"
<b><i>Development of national food and nutrition plans</i></b> Attempts in Belize to have a co-ordinated approach to food and nutrition planning, and the wider need for expertise and attention on nutrition.	5'28"
<b><i>Diversifying crops for food and trade</i></b> Opinions from Dominica and St Kitts and Nevis about agricultural diversification, plus an FAO diversification project.	8'58"
<b><i>Being prepared for natural disaster</i></b> Agricultural rehabilitation needs to be a part of disaster response planning, including preservation and supply of local planting materials.	5'48"
<b><i>Role of the media in development communication</i></b> Development communicators, particularly of government information services, need to work more closely with private media to get their messages out.	6'39"
<b><i>Using modern information and communication technologies</i></b> Use of the internet to communicate nutrition information, and overcoming problems of access.	5'59"



# Food and nutrition security in the Caribbean

## *Food and health - making the link*

### **Suggested introduction:**

Obesity. We're probably all aware that rates of obesity are alarmingly high in the Caribbean, but just how big a problem is it, and what can be done? In the Bahamas, recent estimates suggest that two-thirds of the adult population is overweight, and as much as 31 per cent of adults are actually obese. So it's hardly surprising poor diet is the biggest threat to health in the Caribbean; diseases like stroke, hypertension, diabetes and heart disease are forcing thousands of people to give up work every year, and although it may not be obvious, there are many deaths result from diet-related illness. In developed countries it is estimated that an average of 7 per cent of gross domestic product is spent on treating diet-related illness alone.

Healthy eating clearly deserves to be at the top of every country's health policy plan, but it is not just health departments that need to be looking for answers. What we eat is, to a large extent determined by what is available, and that means that agriculture and trade departments must also get involved. The link between diet and health was one subject of discussion at a conference held earlier this year in Belize. Susanna Thorp spoke to two of the participants to find out more about the state of nutrition-related health in the Caribbean. Firstly Dr Ballyram, a Food Economist with the Caribbean Food and Nutrition Institute, based in Kingston Jamaica.

**IN:** "We are over consuming sugars...  
**OUT:** ... an entire integrated approach."  
**DUR'N** 3'34"

**Back announcement:** Carmelta Barnes, a Senior Public Health Nutritionist at the Ministry of Health with her view that government departments need to work together to tackle the problem of poor health in The Bahamas.

### **Transcript**

**Ballyram** We are over consuming sugars and sweeteners and we are over consuming oils and fats and under consuming fruits and vegetables. And this poses a problem because what we are also noticing is that people are getting much more overweight and obesity is now creeping in as a major problem. And of course you know this issue of overweight and obesity is that they are a risk factor for the main public health problems that we have in the region, namely the nutrition related chronic diseases, diabetes, hypertension, stroke, heart diseases, some forms of cancer and gall bladder diseases and other forms of illness related to food and nutrition.

**Thorp** *So these diseases may actually not be obviously related to the problem of obesity?*

**Ballyram** Yes you are right, people do not recognise this link between food and health. And also most important the link between health and food is not really translated at the level of policymakers between the link between agriculture, health and nutrition and perhaps other sectors of the economy. For example, if you are importing a lot of food that is reconstituted and high in sugars and these are available to people that is what they will be consuming. And it contributes therefore to the obesity and overweight and ultimately to the nutrition related chronic diseases.

- Thorp** *So not only have you got the cost of the import bill of that food but presumably you have also got a cost of treating all these nutrition related diseases?*
- Ballyram** Yes definitely there is no question about that. One recent study here in the region did a study on diabetes, quite in depth and they looked both at the direct costs which are the costs incurred when you visit the doctors and you buy medication and so on. And another cost, an indirect cost that is related to the fact that people cannot work and they will lose productivity and they have to retire earlier. So the total cost, for four countries of the region, Guyana, Barbados, Trinidad, Jamaica, just to treat diabetes alone has been estimated to be over a billion US dollars a year.
- NARR** *With such a huge cost for treating these diseases, I suggested to Carmelta Barnes a nutritionist from the Bahamas that prevention was a much better option than cure.*
- Barnes** Definitely, it is far better, and this is what we would like for our health officials to really pay more attention to, instead of the curative part of it. And the treating, we would really like to go into the lifestyle changes, including food habits and physical activity, to help to prevent some of these chronic diseases.
- Thorp** *Do you think the general population is interested in changing their lifestyle?*
- Barnes** I think they are but I think it has to do with the stage of readiness. They are, but I don't know if they want to do what it takes to actually change their lifestyle. You see people exercising and you see people trying to eat more vegetables and so forth. But I don't think the environment itself is helping out any. The environment has to be more conducive to the lifestyle changes and maybe persons would be better able to stay on track.
- Thorp** *So it really requires a much more integrated approach. It's not just health it needs a lot of other things in place?*
- Barnes** Yes definitely, it is not just health, it is agriculture, it is the environment itself, it's preparing safe places for persons to walk, for persons to exercise. It is a social issue, the school, the Ministry of Education, the physical activity in the schools. You are correct, an entire integrated approach. *End of track.*

# Food and nutrition security in the Caribbean

*Eat healthy, stay healthy*

## **Suggested introduction:**

We often hear about the importance of having a balanced diet, but what does this mean in practice? To answer that question, a nutritionist may talk about the six basic food groups, and the need to eat the right amount of food from each group on a daily basis. For three of the groups - cereals, fruit, and vegetables - we are encouraged to eat larger amounts. For the other three groups - meat and other protein sources, fats and oils, and dairy products - we should eat smaller amounts - although they are still a very important part of a healthy diet. However, this notion of a healthy diet is not widely understood, and in many countries will conflict, sometimes with traditional diets, and sometimes simply with what foods are available.

This can be particularly true when a country is hit by a natural disaster. Susanna Thorp found out more about the difficulty of achieving a balanced diet at a recent conference on food and nutrition security in Belize. Speaking first to Betty Findlay, Executive Secretary for the Food and Nutrition Council in Grenada and Lydia Brown, a nutritionist at the Grenadian Ministry of Health, she asked how difficult it was for people in that country to achieve a healthy, balanced diet.

**IN:** "At this point in time after Hurricane Ivan....  
**OUT:** ... we are going to lose everything."  
**DUR'N** 4'37"

**Back announcement:** Kalawatie Gookool from Trinidad and Tobago stressing the importance of healthy eating for a healthy nation.

## **Transcript**

- Findlay** At this point in time after Hurricane Ivan it is quite a challenge because the majority of the agricultural sector has been destroyed. Our ability to provide food for our people, and not only food, but food that will provide the needed nutrients for improved health, that is the challenge we have now. Also in regard to that because so many trees have fallen the problem of clearing the land is posing a big, big challenge. And then, being able to source plants, seedlings and plant, those are some big challenges for us at this time.
- Thorp** *So there are two separate issues, there is the food availability and accessibility and then also you have got then the nutritional side of things as well. Lydia how do you see that as the main problems there?*
- Brown** Well it comes back to us putting agriculture and nutrition together because what we have seen is a vast increase in the level of uncontrolled diabetes and uncontrolled hypertension. Because people especially after the hurricane had to resort to a lot of processed foods and canned goods and things that are not usually promoted for these disease states. And so we have seen a lot of hospitalisations, a lot of illnesses coming about, I think, as an after effect of that incident.
- NARR** *With poor diet leading to high rates of illness in Grenada, I asked Lydia what could be done to promote healthy eating.*
- Brown** Well I think that behaviour change is a major part of wellness. And in the Caribbean we have a mindset that this is the way we did things 20-50 years

ago and this is the way my grandmother did it and this is the way I'm going to do it. And so I think it's really going to take us a few years to come, but it has to be chronic education. Chronic education and us giving the same message. The same message coming from all the professional people, including the doctors. Because that is where a lot of misinformation, especially on nutrition comes from, and Caribbean people, especially people in Grenada, they listen to the doctor. Whatever the doctor says is gospel. So it is important for us as nutrition professionals to educate not only the people but to educate other professionals so that they are giving the same message that we are giving. And hopefully in a few years from now, we will be able to see a reduction in some of the chronic diseases and some of the low birth weights and things like that.

**NARR** *Kay Gookol is the Chief Nutritionist for the Ministry of Health in Trinidad and Tobago. She also feels that better communication about healthy eating is essential, but achieving this will require a joint effort by several government departments.*

**Gookol** Personally I feel that a lot of work needs to be done in nutrition. Because if you go out into the rural areas in Trinidad and Tobago people know very little. And we need a lot more teaching of people, a lot more educational programmes to be held throughout the country, both Trinidad and Tobago. Because people hardly really know what are the basic six food groups and how to eat a well balanced meal to help them on a daily basis. And the big thing today is eat healthy and stay healthy. So we need to promote that and if we can't we are losing the whole thing.

**Thorp** *Do you think that agriculture and nutrition are integrated enough or do you think there is a lot more?*

**Gookol** No, no I do not think we are integrated enough. I think also we should incorporate the Ministry of Education because within the Ministry of Education we have the school nutrition programmes, and children should be taught from pre-kindergarten level to eat healthy. So they need to be incorporated, the Ministry of Education, Ministry of Agriculture and Ministry of Health. And I think if we do that and we try to promote it, we will be able to help a lot more.

**NARR** *But, I asked her, what can nutrition experts like herself do in order to have an impact on policy makers and achieve significant change at a national level?*

**Gookol** The thing is it goes right back; are we meeting the people that we should meet to get all these things going? We can put everything in black and white on paper there and if we don't meet the people at that level we are losing everything. And I think that is what is happening, we are losing the nation. Because if you look our children's eating habits, it is really, really bad. And if we don't have a healthy nation we are going to lose everything. *End of track.*



# Food and nutrition security in the Caribbean

## *Development of national food and nutrition plans*

### **Suggested introduction:**

Poor nutrition can take many forms. It is a shocking truth that in some parts of the world, over-consumption of sweet and fatty foods is having a huge impact on health and fitness, while in others, people are weak and prone to disease because they do not have enough to eat, or lack sufficient protein, vitamins and minerals in their diet. Whilst the island states of the Caribbean region is perhaps unusual in having both these problems existing side by side - obesity and under-nutrition are, in some places, almost neighbours.

As a way of addressing these problems, many Caribbean governments are now developing national food and nutrition security plans. This is a complex process, since food and nutrition involve many different areas of expertise, and require joint action by more than one ministry. At a recent conference on food and nutrition held in Belize, Susanna Thorp spoke to two people who have been heavily involved in the development of such plans. She spoke first to Lorraine Thompson, who works as country co-ordinator in Belize for the Institute of Nutrition for Central America and Panama (INCAP), and began by asking about Belize's progress in implementing its national food and nutrition plan.

**IN:** "In Belize we are working on developing...  
**OUT:** ... financially as well as otherwise."  
**DUR'N** 5'28"

**Back announcement:** Christine Bocage from the Caribbean Food and Nutrition Institute in Trinidad and Tobago emphasising the importance of good nutrition in supporting economic development.

### **Transcript**

#### **Thompson**

In Belize we are working on developing a food and nutrition security plan. Our policy was adopted by government in 2001 and right after that a commission was named which is the body that would try to co-ordinate activities and try to make the plan operational. We have had some difficulties in trying to develop the plan and to implement it. One of them for instance has to do with co-ordination of activities. There are several different sectors that are working on nutrition in the country and I am sure this is what happens elsewhere. You have Ministry of Health has its programme, you have Ministry of Agriculture has its programmes related to food and nutrition security. You have the Ministry for Education for instance that has school feeding programmes. And what happens at the moment is that each of these bodies are carrying out their projects discreetly and what we need to do is to have some sort of co-ordinated approach to ensure that activities are co-ordinated and we are all working towards the same goal, that is improving food and nutrition security in the country.

**Thorp** *So you would like to see better integration between the sectors?*

**Thompson** Right and I think one of the ways we are trying to approach it from is to have a co-ordinator, somebody who would work with the different entities that are involved in food and nutrition security that would bring us together. We put all our activities into one plan and hopefully there can be a more co-ordinated approach and certainly less duplication of efforts and better utilisation of the resources that we have.

- Thorp** *And how is the plan seen within the country policy as a whole, is it given the priority that you would like it to be given?*
- Thompson** I think for the most part our problem in the area of food and nutrition has been the fact that nutrition was never seen to be a problem. Now we understand better the concepts of food and nutrition security and we recognise that in fact the problems in relation to nutrition in this country are big. We are having a lot of chronic non-communicable diseases and we still have pockets of under-nutrition and so our problems are in fact bigger than we thought. We do have a big problem and we do need to generate more support - financial, technical and other resources - to support the implementation of these plans.
- Thorp** *So although you are struggling with a number of different issues, actually in Belize your food and nutrition commission is further along perhaps in being set up and implementing its plan than some of the other countries in the region?*
- Thompson** Right. There is a lot of political will and that is what has helped us along. Our government has seen, and I think they recognise, that food and nutrition security can be a tool to development and I think it recognises that food and nutrition security can be a tool that would help to alleviate poverty. The bottom line is that we have the political commitment which has helped us to come this far.
- NARR** *Christine Bocage is a nutritionist at the Caribbean Food and Nutrition Institute, and she is responsible for assisting countries to develop and implement their national plans. I put it to her that one of the main challenges Caribbean nations face is the low number of people who are trained in both agriculture and nutrition.*
- Bocage** With respect to agricultural, the human resource in agriculture I think it is much better, 100% better than with respect to nutrition personnel in the region. We do have countries with no nutrition experts at all and they rely very heavily on the services of the Caribbean Food and Nutrition Institute. And with respect to agriculture even countries that are importing 99% of their foods that they utilise and consume in country, they do have a greater capacity in agriculture than they do have in nutrition. So it is something that we really do need to take a long look at and to try to convince policymakers that there is a need for nutrition experts if we want to improve food and nutrition security at a national level as well as at a household level. And it is at the household level that we have the nutrition experts; particularly important because then they can give them knowledge and skills so that they can make the right choices and they can lead healthy lifestyles so that we can have a healthier population.
- Thorp** *Because if nutrition can be seen in the right way governments would actually be saving themselves money?*
- Bocage** Yes, I do think we have seen that in the past and again this will have to do with a lot of sensitisation. But you know politicians like to look at dollars and cents. How would improving nutritional status affect productivity or the economics of the country and so on. So we really need to, as nutrition professionals, agriculturists, persons in trade and planning, try to collect data,

analyse the data, have sufficient information, as advocacy tools to convince the policymakers that if we do have a more productive society we can improve our situation financially as well as otherwise. *End of track.*



# Food and nutrition security in the Caribbean

## *Diversifying crops for food and trade*

### **Suggested introduction:**

Across the Caribbean it is clear that agriculture needs to diversify. The loss of preferences in EU markets, for example, threatens the economic viability of traditional export crops such as sugar and bananas, and if farmers are to survive they will need to change what they grow, and how they grow it. So what are the options? One basic question is whether countries that traditionally import most of their food should be looking to increase the amount and variety of food crops grown on their own soil. Or should they simply grow other cash crops with strong export potential and sell these to fund continuing food imports?

It's a question that came under discussion at a recent conference focussing on food and nutrition security held in Belize. Susanna Thorp spoke to several participants about their vision of the future of agricultural diversity and trade, and how these link to the nutrition and food security of Caribbean people. In this report she begins by asking extension agent and agronomist, Richard Allport, about the situation regarding food, nutrition and trade, in his home country of Dominica.

**IN:** "Generally Dominica has always been considered....  
**OUT:** ... themselves as well as trade internationally."  
**DUR'N** 8'58"

**Back announcement:** Sandra Plummer of the FAO ending that report on the links between crop diversification, income generation and supply of food in the Caribbean.

### **Transcript**

**Allport** Generally Dominica has always been considered as a food secure nation in terms of its food balance. Generally we have exported more food than we have imported in terms of value. However over the last few years we have seen some deterioration in the food and nutrition situation because we have seen some declines in the economy.

**Thorp** *So why in particular has there been an impact on the economy, why has that been declining in the last couple of years?*

**Allport** I think the major reason has been the decline of the banana industry and the whole question of the WTO negotiations and the impact on our economy. We now have a very open economy and many times we have been flooded with cheaper imports. That has caused a decline in incomes to farmers and as a result it has caused us to have less disposable income.

**Thorp** *So what are you trying to do as an extension department to try and support farmers in this serious situation?*

**Allport** The most effect that we can have is to try to raise productivity among farmers so that they can increase incomes. But we also would like our production to be consumed locally and many times we bring up issues of protection. Under our WTO obligations we cannot protect but there still is a reason why we need to protect our farmers. Furthermore I think that if our farmers are not protected it means that our country's ability to even purchase from outside in the long run is affected. So if the economy is totally destroyed our ability to import is also destroyed or compromised.

- Thorp** *And what about trying to diversify? If farmers have relied heavily on growing bananas in the past but this is not going to be a viable option in the future, what other options for growing other crops, perhaps more nutritional crops are there?*
- Allport** Well the options are always there in terms of diversifying to feed our population. That is why I consider us still food secure. But then our ability to export agricultural produce is always compromised. So I think that is where the resources have to be put. Do we really have a comparative advantage in terms of exporting to other countries out there? So I think those are the real issues, it is not just the ability to feed ourselves but can we diversify into other crops that we can export like we did bananas for so many years.
- Thorp** *And what about the issues of raising productivity, I mean how feasible is it to raise productivity beyond what you are doing already?*
- Allport** I think it is feasible. We really have to embrace science and technology. But sometimes - even under our WTO obligations - raising productivity requires infrastructure and sometimes people see the required infrastructure as subsidies and they ask us not to subsidise. When the developed world's agriculture is highly subsidised both in the EU and in the US. So those are other concerns of ours.
- Thorp** *What about with policymakers, do you feel that they are doing enough to resolve the situation?*
- Allport** I think our policymakers see it, but I think many times our hands are tied in terms of the kind of resources that we can generate to make those changes. I mean we are a poor underdeveloped country striving to compete in the developed world.
- NARR** *In St Kitts and Nevis the government is already in the process of planning which crops it should prioritise, as it reduces its dependence on sugar exports. Jeffrey Berry, an extension officer with the Department of Agriculture, is concerned that this process is ignoring the capacity that the country's own farmers have, to contribute to the national food supplies.*
- Berry** Yes we have to feed a nation, but are the people, the population, the farmers benefiting from feeding ourselves?
- Thorp** *Presumably they are not?*
- Berry** They are not because what is really happening is that when we set out to look what crops should we produce we are looking from a marketing point of view as to what crops can we produce competitively, not necessarily to feed our nation. So I think somewhere along the line we have to draw the line and to break a kind of equilibrium as to production first of all in feeding yourself, feeding up to at least certain basic commodities.
- Thorp** *Is there a possibility of being able to diversify so that farmers can grow some competitive crops but they can also be encouraged to grow nutritionally valuable crops too?*
- Berry** That is the approach we are trying to do because St Kitts is moving out of

sugar right now. I think this year is the last year that we are producing sugar for export. So we are looking at a diversification programme. And I think this is the downfall of the whole thing: we are going about it kind of one sided in the sense that we are just looking at it from a marketing point of view as to what kinds of crops we can produce competitively. I think we have to look at producing other crops that are nutritionally beneficial for the nation, on a smaller scale, but I think that is an integral part that we have to look at apart from the crops that we are producing to be competitive.

**NARR** *While Jeffrey Berry stresses the importance of farmers growing at least some of their crops for domestic consumption, the UN Food and Agriculture Organisation is currently running a pilot project to support farmers in production of some alternative cash crops. Sandra Plummer, a food security specialist with the project, which is operating in the 15 member states of CARICOM plus the Dominican Republic, explained how it is working.*

**Plummer** You know that we have a lot of problems in terms of especially sugar and banana because of the erosion of the preferences with the European Union. I think countries are now in transition, in terms of where they should go where they would not be so dependent upon those preferences.

**Thorp** *So what is the FAO pilot project doing to support farmers in this transition phase?*

**Plummer** The project actually is attempting to improve the productivity of these selected crops and it is basically cash crops with the potential for trade in what we call the non-traditional commodities which find markets in places like Canada, the United States. Especially in those areas where you have the West Indian diaspora who are accustomed to eating a particular type of food and they are willing to buy it. So there is a kind of niche market there.

**Thorp** *So what sort of interventions or technologies are you putting into place in order to support the growing of those crops?*

**Plummer** The technology that is being used is drip irrigation because in many countries they have a problem of water and the management of the water.

**Thorp** *So with having irrigation does this allow farmers to grow crops outside the traditional seasons?*

**Plummer** That is exactly the whole point because what happens is that I can give you an example of one village in a country where everybody grew the same kind of crop. So you had a glut during the actual reaping season and then between seasons you had a deficit in terms of availability of food as well as availability of income. So the drip irrigation actually helps to stagger the production throughout the year so that the troughs and the heights of the cycle will actually be reduced. So you get little blips instead of huge hills and valleys.

**Thorp** *So are there countries where there are particular lessons that would be valuable do you think that are already coming out of the project?*

**Plummer** The country which has gone the furthest and has actually started to reap the first crop cycle is Belize. And I think Belize has the advantage and it is probably the reason why they were one of the first countries to actually start

the production, in that they already have an intersectoral Animal Health and Food Safety Agency which co-ordinates all the requirements from the Ministries of Health and Agriculture and Trade. And hence it makes it easier for persons who are wishing to export crops. They do not need to go to eight different departments. They can go to one agency and get all the paperwork and documentation done.

**Thorp** *So how do you see the way forward for the future?*

**Plummer** I think in terms of regional development, as in Caribbean region, we hope to get a framework of food and nutrition security strategy for the region, which would then be able to advise programmes and plans of action of the different CARICOM and CARIFORUM member states. I think part of the process is the establishment of, for example, regional databases, regional marketing intelligence, so countries can all access it and be able to trade amongst themselves as well as trade internationally. *End of track.*



# Food and nutrition security in the Caribbean

## *Being prepared for natural disaster*

### **Suggested introduction:**

When a natural disaster occurs, such as a flood or a hurricane, the immediate need for government is to save lives and provide basic services, such as healthcare, clean water and shelter, as quickly as possible. Where food crops are also lost, requesting and distributing food from other countries is often seen as the best option to prevent people starving. In the short term this may be true, but there is also a growing awareness among Caribbean disaster-response planners that more effective strategies for restoring agricultural production are needed. They argue that Caribbean countries need to develop their own resources, in order to make their agricultural systems more robust in the face of disaster, and so that the rebuilding of agricultural productivity can take place quickly and effectively when disaster strikes. Responding effectively to disasters, particularly in terms of maintaining food production, was one of the subjects discussed at a recent conference in Belize. Susanna Thorp spoke to two of the participants about the importance of agricultural rehabilitation as a part of disaster response planning in the Caribbean. Firstly, Jennifer Maynard, liaison officer for international and regional organisations in Antigua.

**IN:** "Up to now national disaster plans...  
**OUT:** ... move it back into the country."  
**DUR'N** 5'48"

**Back announcement:** Neville McAndrew and Jennifer Maynard were talking to Susanna Thorp about the need for agricultural rehabilitation to be part of natural disaster response plans in the Caribbean.

### **Transcript**

#### **Maynard**

Up to now national disaster plans and regional disaster plans tend to be human life and human settlement. And anything to do with food has to do with bringing food in for the immediate hunger. So they bring in bags of rice, they bring in bags of corn, some organisations bring in seeds and fertiliser and weed control. What do you do? With the weed control you are going and doing a massive kill, and you are killing indigenous species, the species that are the recovery species. Two, the disaster, depending on what it is, can damage your landraces, it can destroy your indigenous, robust planting material or livestock material. And the recovery seed aid can actually be other species that replace that original species, so that you can in fact end up eroding your bio-diversity. So for instance Antigua, if you lose your eggplant and your sweet potato varieties, which are responsive to our drought conditions, in the inundation of a flood or a hurricane and then your food aid seeds come in and replace it with another variety, you can in fact to me actually create a situation where you are building further on that to further make yourself insecure because you just don't have your landraces that you can fall back on.

#### **Thorp**

*So it really requires investment now to get the long term rehabilitation plans in place not just the disaster preparedness?*

- Maynard** Yes, one rehabilitation of agriculture has to be built into a national disaster plan. So you need to be planning, one, germplasm collections, and two, farmers and producers, we actually need to begin to do some trials and experiments with what can be done to protect at a particular level of wind or particular level of rain. Because as I say disaster preparedness has generally concentrated very specifically on human life and shelter for human life. But it has not necessarily looked at the need for conservation, protection and rehabilitation of seeds and animal genetic resources.
- Thorp** *So how can you get this message across to the people that need to know?*
- Maynard** I think that our disaster preparedness committees need to be required to have an agriculture recovery section which is as important as human life and shelter section. I don't think we have all the solutions, so it is a planning problem, it is a research problem, and it is actually the need to have these agriculture people actively part of the disaster preparedness mechanism so that we can recover. Because yes, human settlement and human life is important but if human life does not have food to eat it will end up being worse off than it was prior to the disaster.
- NARR** *Also at the conference was Neville McAndrew, an agronomist with the Caribbean Agricultural Research and Development Institute, CARDI, in Belize. He spoke more about the need for Caribbean countries to be saving planting material from their own crop varieties, to use when crops are destroyed by natural disasters.*
- McAndrew** The Caribbean region is subjected to just about every natural disaster you can think of. Hurricanes are the most common and regular but we know about volcanoes, we know about earthquakes, tidal waves, floods are common and we have to make plans to provide farmers with the planting materials and the necessary inputs to get their production going after a disaster event.
- Thorp** *So as we have seen recently in Asia it is not just about the short term relief, it is actually about the long term rehabilitation?*
- McAndrew** It is about the long-term rehabilitation yes. Short term relief you can bring relief supplies in but at the same time we must have in place the necessary steps that will allow the farmers to get back to the land as quickly as possible after a disaster event.
- Thorp** *And to be growing the appropriate types of crops?*
- McAndrew** And to be growing the appropriate types of crops. Unfortunately in our region most of the traditional crops are landraces that you would not find the type of planting material available in commercial houses. Most of the farmers rely on the crops to get the planting materials and if the crop is destroyed, the planting material for the subsequent crop goes with it.
- Thorp** *So is there no genebank collection for that landrace material that is held in the region?*
- McAndrew** At this moment to the best of my knowledge no.
- Thorp** *Presumably it is very expensive to set up a genebank so that is perhaps one of the constraints to doing so?*

**McAndrew** It is not a genebank as a germplasm collection as such. What you will be collecting is germplasm of the important food crops and those are multiplied and they are periodically put back into the countries as commercial seed. But what is important is that you will always have a quantity of that material available in the event of a disaster that you can rapidly move it back into the country. *End of track.*



# Food and nutrition security in the Caribbean

## *Role of the media in development communication*

### **Suggested introduction:**

Reading the newspaper, what do you look for? Local or international news? Sports reports? Crimes and accidents? We all have our interests, and for many of us, issues like health and diet may come fairly low down our list. For government ministries responsible for health, food and agriculture, this can make us a difficult audience to reach. They may have important information, but how to communicate it effectively? They may even struggle to get private media people, whether print, radio or TV, to take an interest, and the information never reaches the majority of people, including perhaps those who need it most.

At a recent conference in Belize, communication professionals from across the Caribbean were invited to discuss how information on food and nutrition could be better communicated in the region. Several of the participants were asked to comment on how the private media, government departments and others involved in development communication could work more closely to achieve better coverage for these important issues. To begin this report, Susanna Thorp spoke to Wesley Gibbings, a journalist and President of the Association of Caribbean Media Workers, and asked him if he knew of any good examples where co-operation between these different groups had taken place.

**IN:** "I think that the HIV/AIDS campaign.....  
**OUT:** ... want to come back a second time."  
**DUR'N** 6'39"

**Back announcement:** Merlyn Severin from St Lucia ending that report on how government information officers and private media bodies need to improve their relations, to improve the dissemination of development information in the region.

### **Transcript**

#### **Gibbings**

I think that the HIV/AIDS campaign in the region is a shining example of collaboration between development communicators and journalists and media people in the region. There have been very positive effects from this. Only recently in Trinidad and Tobago researchers there were concluding that the instances in which people were actually dying as a result of the HIV virus was on the decline. And that was as a direct result of the fact that people are now more aware that the medical regimes that are available to people free of charge are being taken by people and that they are observing all the requirements of taking those anti-retrovirals.

#### **Thorp**

*So in the same way perhaps similar things could be achieved with messages to do with obesity and diabetes, some of the things that we were talking about this morning?*

#### **Gibbings**

Yes I think that what needs to happen is that these issues need to be packaged and presented in such a manner as to suggest a sense of urgency. Too often these issues are dismissed as peripheral and of only marginal value in the average daily scheme of things. I think that what needs to happen is that the development communicators need to package the information that is available and present to the media people and the community at large the fact that these are very serious and urgent issues that need attention.

#### **Thorp**

*But don't you think that one of the problems too is that development people*

*themselves don't understand how best to communicate and to package that information?*

**Gibbings** That is quite right and I think that a process of learning needs to take place and I think it can happen simultaneously. That the development communicators need to sit with the journalists and to learn from each other. I think that among the media environment in the region there are journalists who are genuinely concerned about development who want to see the people of their countries live better lives, live longer and healthier lives. And there are development communicators who I believe have the skills to pass on to the journalists a basic understanding of the nature of the problems that we confront. So I am very optimistic that it can happen.

**Thorp** *So the future is to build bridges between the two?*

**Gibbings** Certainly and I think that the first step needs to be taken by the development agencies that operate throughout the region at national, regional and international levels. I think that they need to approach the media environment with far more openness. They need to trust them more. They need to appreciate the professional values that guide the work of journalists much more.

**NARR** *So the private media is one important way that information can be delivered. But what role should government information services have? Selwyn King, Public Relations and Communications Manager of the Caribbean Agricultural Research and Development Institute (CARDI) offers his view.*

**King** The media is one channel, and when we take a closer look, each member state has a Government Information Service, GIS, and their role is essentially to bring out issues on development, issues that affect the lifestyle of the population. That includes as well food security and nutrition. So that role of the Government Information Service is to produce programmes, and those programmes can be delivered to the radio and television stations, which can then be aired.

**Thorp** *Presumably an important part of their role is to understand the information that people want?*

**King** They need to understand the information and who is best to understand the information than the people who are working in the Government Information Service system? Because they have access to the permanent secretaries, they have access to the ministers of government, they have access to the technicians within the government machinery. It is just a matter of taking the time out, develop programmes of what needs to be addressed in terms of education, public awareness, campaigning.

**Thorp** *So we are not just talking about policy issues, but we are talking about... ?*

**King** We are talking in terms of food and nutrition security, we are talking in terms of breast cancer, we are talking in terms of diets, we are talking in terms of healthy lifestyle. There is a whole range of issues that have not been touched. And if the leadership of the GIS recognise what is their role and the role of the GIS system, they would be better repositioning themselves to deliver these programmes to the media who are basically limited in terms of human resources, to air the programmes. So the dynamics of the environment that we

live in today we have to be realistic, we have to be on top of issues. Government policies, government projects, how do they all integrate in terms of development of the society? It is a matter of participation and the Government Information Service has a significant role to play.

**NARR** *For Merlyn Severin, Chief Nutritionist within the Health Ministry in St Lucia, improving the amount of development information being published and broadcast by private newspapers, radio and TV stations depends on creating closer, more trusting relations between the public and private sectors. For the staff of government ministries, this may mean having a less critical attitude to the media.*

**Severin** We always put down the media and say that media is not supportive, they like sensational stories. In my opinion one of the ways we can approach it is changing the way we deal with the media. When we as nutritionists/dieticians, nutrition people, call on the media people to give us some kind of highlight, we call on the phone, they do not even know us, then they come on. Do we ever get back to them and say 'Thank you, you did a good job'? Do we ever say to them, 'Ok, as a result of your piece, your news piece, I was able to find out five more diabetics; they heard it and they were convinced'? You must give him what he deserves, give him 'flowers', let him feel that he made an impact. We are just going to call him one day, he does not know our office, he does not know us, and we tell him the story about what is in a mango... But if he knows that when I did that, the Ministry of Health picked up 14 more diabetics in a 3 month period I don't see any reason why he would not want to come back a second time. *End of track*





## Food and nutrition security in the Caribbean

### *Using modern information and communication technologies*

#### **Suggested introduction:**

When did you last use a computer? What were you using it for? Maybe you have never used one and don't feel you need to. For most people who have started using computers in the last ten years, probably the most popular service that computers offer is email. For sending messages to family, friends and colleagues, email can be the quickest and most reliable method. Computers can also be a valuable source of information, allowing users to search for up-to-date news, weather reports, health or even market information, through the internet. Interestingly however, research suggests that far fewer people use computers as a source of information, certainly compared to the number who use email. The reason? Perhaps the expense of paying for time online, or not knowing how to search for the right information. And many of us are simply unaware of what useful information might be available, and continue to rely on other sources, such as TV, radio, newspapers and friends.

Faye Durrant, Professor of Library and Information studies at the University of the West Indies in Jamaica believes strongly that computer-based technologies have a lot to offer, not just to highly skilled professionals, but also to rural people making a living from agriculture and other local industries. At a recent conference in Belize, she, and other participants, discussed the power of these technologies for rural development; afterwards, they spoke to Susanna Thorp about their own experiences.

**IN:** "Well certainly in terms of the uptake...  
**OUT:** ...the information that they require.  
**DUR'N** 5'59"

**Back announcement:** Thomas Burton ending that report on the current usage of ICTs - Information and Communication Technologies - for rural development in the Caribbean.

#### **Transcript**

**Durrant** Well certainly in terms of the uptake of the Internet that is increasing daily. So I think that is one of the ways in which we can get a large region like this, one point on the Internet can be accessible to everybody in the whole region.

**Thorp** *But for vulnerable groups this presumably is not something that they necessarily can access particularly on an individual level?*

**Durrant** What has been happening and certainly in Jamaica is the development of tele centres via the public library system where there are public access computers which people can go in and use for this kind of information without having to have their own dedicated computer.

**Thorp** *And what about the introduction of these things, these technologies in schools that the children are learning at the new generation?*

**Durrant** Yes certainly that is where the children are catching on very fast to the whole facility of email and searching for information on the web. What we want to ensure is that when they search they can find a spot where they have reliable information that will give them the basis for long term decision making on their diet and the way in which they develop their own personal nutrition strategies.

- Thorp** *Because there isn't a lack of information, it is actually people knowing where to go to find it?*
- Durrant** Exactly and even having it in the form because now children want multimedia, they don't want any ten pages of text telling them something. They want something that jumps out at them and says, 'Look at me!' So it is also the way in which information might be packaged for them at that age and stage.
- NARR** *It is not only in Jamaica that the use of computers is growing. Andrea Robbin, Head of the Nutrition Unit within the Ministry of Health and the Environment told me about the situation in St Vincent and the Grenadines.*
- Robbin** I think that the youth are embracing, for example, computer based technologies and older persons maybe a little more tentative and sometimes the policymakers are the older persons. But in St Vincent and the Grenadines we have a government Internet, a website and government Intranet as well as government email. So those are opportunities for sharing information that we really want to use and our nutrition unit in the Ministry of Health and Environment is already submitting information to the St Vincent and the Grenadines government website in terms of the newspaper articles and some of the radio scripts that we produce. But I think that there is a need for access for the consumers in terms of Internet access to that website and to maybe other websites related to food and nutrition security. Hardware in terms of actual computers. I think the government has programmes to introduce computers to maybe community resource centres and learning centres, but I do not know in terms of how far it reaches.
- Thorp** *So that people could go to that community resource centre and download information that they needed on recipes or good nutrition or breastfeeding for instance?*
- Robbin** Absolutely or backyard gardening best practices, or other aspects of food and nutrition security whether it is from an agricultural perspective, health perspective, nutrition perspective.
- NARR** *And while the use of computers to access information is starting to grow, they also have other uses. Thomas Burton, from Jamaica's Rural Agricultural Development Authority, RADA, explains how his organisation is using them to record and analyse information, as well as provide it.*
- Burton** Well at the moment RADA is trying to implement an ICT based information system, which will benefit both the extension officers and the farmers. We are at the moment carrying out a national registration programme for all farmers, so that we can know the numbers with whom we are interacting and can make plans to satisfy their various demands. This information that is garnered will also give the size of the holdings that they are operating, their locations, what they are planting at the various times and what is expected, times of harvesting and output possible. It will also give a possibility on projected price so the farmers will know how much they can expect to earn from a given unit area of production. The extension officer will input this data on his computer system and then farmers can also come to the office and get information from him on what has been required in the different market centres at different times.

- Thorp** *And how do farmers feel, do you think farmers are willing to embrace new technologies in order to get the information that they require?*
- Burton** They are willing to embrace the technology but the older farmers are at a disadvantage in that they have not been trained in how to use these devices. So what we are hoping is that the children who are currently in school and are being afforded the opportunity to learn how to use the computers for example can now pass on information to their parents. The problem also is that many of these resource deficient farmers are not able to buy computer equipment so they will have to probably depend on what is at the library or what is in the community centre and this can slow down the process. So we are hoping that as the price of the equipment gets lower, then more persons will be able to access this. However if they cannot access it in their own homes we have 60 extension offices across the island which are being equipped with computers so the farmers can go to these centres and get the information that they require. *End of track.*